Clever Reinforcement Company AG

S&P ARMO-mesh

S&P ARMO-system:
The S&P ARMO-system is a combination of S&P ARMO-crete and S&P ARMO-mesh. The system is used for static retrofitting (flexural, axial, shear) of RC structures. Different test results for the system carried out at different independent Technical Universities and laboratories are available. The static dimensioning of the S&P ARMO-system is carried out with the software ARMO-flexion as well as with ARMO-axial.

Technical data	**ARMO-mesh L500**	**ARMO-mesh L200** (main direction length) **ARMO-mesh C200** (main direction cross) **ARMO-mesh 200/200** (both directions)
Elastic modulus (theoretical) [kN/mm^2]	240	240
Reduction factor on elastic modulus due to application	1.5	1.5
Elastic modulus (reduced) for design [kN/mm^2]	**160**	**160**
Ultimate tensile strength C-fibre (theor.) [N/mm^2]	4‘300	4‘300
Weight of C-fibre in main direction [g/m^2]	200	80 (2x80 for S&P ARMO-mesh 200/200)
Density C-fibre [g/cm^3]	1.7	1.7
Elongation at rupture (therotical) [%]	1.75	1.75
Theoretical thickness of C-fibre for design (fibre weigh t ÷ density) [mm]	0.117	0.047
Theoretical cross section C-fibre for design [mm^2/m]	117	47
Ultimate tensile force at 1.75 % (theoretical) [kN/ m]	**500**	**200**
Tensile force for desing (S&P recommendation) **Flexural (~ 800 N/mm^2)** (Limit strain at ultimate state 0.5 %) **[kN/m]** **Axial (~ 640 N/mm^2)** (Limit strain at ultimate state 0.4 %) **[kN/m]**	 **93.6** **74.8**	 **37.6** **30.0**

ARMO-mesh L500 **ARMO-mesh L200** **ARMO-mesh 200/200**	Width / Length of roll: 1.95 m / 50 m
ARMO-mesh C200	Width / Length of roll: 0.975 m / 50 m

Coating / Storage:
S&P ARMO-mesh is coated with a reactive component. The component is sensitive to water. Therefore the product shall be stored in a dry area.

Cutting of product:
The product cannot be cutted with a knife. It has to be cutted with an industrial scissor.

Application of product:
If the product is used in combination with S&P ARMO-crete w (w = wet spraying method), the mesh is layed wet in wet into the spray mortar.

If the product is used in combination with S&P ARMO-crete d (d = dry spraying method), the mesh is fixed temporarily and sprayed in with the shotcrete. It's also an option to fix the product with clamps into the first shotcrete layer. After a second shotcrete layer can be applied over the mesh. In such circumstance, the cleaning with water pressure of the first shotcrete layer is recommended in any case before the application of the second layer.